

CLAIMS

What is claimed as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. A new and improved tool for the removal of both metric and standard damaged fasteners, in combination:

a socket head having a cylindrical external configuration with an upper end and a lower end and an axis with a first axial length therebetween and with a square recess in the interior of the upper end adapted to receive the end of a ratchet wrench and multiple flats on the exterior to allow adaptation of a wrench or socket, the lower end of the socket head being fabricated with a major recess of a generally frustroconical configuration, the major recess having an interior surface formed with a plurality of inverted V-shaped projections and the right leg of the inverted V-shaped projections is at a slight angle or almost parallel and radius at the bottom connecting the inverted V-shaped projections, integral with the socket and extending radially inwardly from the lower end, thereby forming a plurality of angles with radially interior teeth, each of the angles having an apex with two faces of essentially uncommon lengths, the faces of each angle being offset essentially equally from the radius of the cylinder,

the apex of each tooth being angularly oriented with respect to the axis of the cylinder, the axial interior of the major recess having a smaller diameter than the axial exterior of the major recess, the major recess continuing through the socket head beyond the projections with a width greater than the diameter of the major recess at its axial interior whereby when placed over a rounded off head of a damaged fastener, a portion thereof will extend beyond the projections, and the socket head is rotated with a ratchet motion, the teeth will pull downwardly over the damaged fastener and bite into its exterior surface to effect a coupling therebetween for rotation of the socket head and associated damaged fastener to effect its removal.

2. A device for the removal of both metric and standard damaged fasteners with rounded off heads from nuts comprising:

a socket head having a cylindrical external configuration with an upper end and a lower end and an axis with a first axial length therebetween and with a surface on the upper end adapted to receive the end of a turning tool, the lower end of the socket head being fabricated with a major recess of a generally frustroconical configuration with a second axial length, the major recess having an interior surface formed with a plurality of inverted V-shaped projections and the right leg of the inverted V-shaped projections is at a slight angle or almost parallel, integral with the socket and extending radially

inwardly from the lower end with valleys intermediate the inverted V-shaped projections, thereby forming a plurality of angles with radially interior teeth, each of the triangles having an apex with two faces of essentially uncommon lengths, the faces of each angle being offset essentially equally from the radius of the cylinder, the apex of each tooth being angularly oriented with respect to the axis of the cylinder, the axial interior of the major recess having a smaller diameter than the axial exterior of the major recess whereby when placed over the damaged fastener and when the socket head is rotated with a ratchet motion, the teeth will pull downwardly over the damaged fastener and bite into its exterior surface to effect a coupling therebetween for rotation of the socket head and associated damaged fastener to effect its removal.

3. The device as set forth in claim 2 wherein the major recess continues through the socket head beyond the projections with a width greater than the diameter of the major recess at its axial interior whereby when placed over a damaged fastener, a portion thereof may extend beyond the projections.

4. This design can be implemented into a wrench or a ratchet.

5. The same tool will remove both metric and standard damaged fasteners.